GOVERNMENT OF INDIA
COMMUNICATIONS
LOK SABHA

UNSTARRED QUESTION NO:5199
ANSWERED ON:05.04.2017
Radiation from Mobile Towers
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Will the Minister of COMMUNICATIONS be pleased to state:

(a) whether the Electromagnetic Signals/Radiations received and transmitted through the mobile towers have proved to be harmful to humans and if so, the details thereof including the study, if any, conducted by the Government in this regard;

(b) the norms and guidelines set up by the Government for installation of towers near public places and the radiation limit fixed for the same;

(c) whether the cases of violation of the said norms by service providers have come to the notice of the Government and if so, the details thereof including the number of such cases reported during each of the last three years and the current year, State/UT-wise;

(d) the corrective steps taken and penalty imposed by the Government on the erring service providers, State-wise and company-wise; and

(e) the steps taken/being taken by the Government to organise awareness programme on radiations from mobile towers across the country?

Answer

THE MINISTER OF STATE (IC) OF THE MINISTRY OF COMMUNICATIONS &
MINISTER OF STATE IN THE MINISTRY OF RAILWAYS
(SHRI MANOJ SINHA)

(a) No, Madam. With regard to impact of Electromagnetic Field (EMF) emissions from mobile towers on health, World Health Organization (WHO) has referred to approximately 25,000 articles published around the world over past 30 years, and based on an in-depth review of scientific literature, has stated, "Despite the feeling of some people that more research needs to be done, scientific knowledge in this area is now more extensive than for most chemicals." WHO has concluded - "current evidence does not confirm the existence of any health consequences from exposure to low level electromagnetic fields".

An Inter-Ministerial Committee (IMC), setup in 2010 to examine the effect of EMF Radiation from base stations and mobile phones, after examining various national and international studies on the environmental and health related concerns due to EMF, had, inter-alia, indicated that most of the laboratory studies were unable to find a direct link between exposure to radio frequency radiation and health.

Also, a committee comprising of members from Indian Institutes of Technology (IITs) Kharagpur, Kanpur, Delhi, Roorkee, Bombay and from other scientific institutions of the country including Indian Council of Medical Research (ICMR) and All India Institute of Medical Science (AIIMS) Delhi was setup at the behest of Hon'ble High Court Allahabad, Lucknow bench. The Committee in its report, submitted in 2014, has, inter-alia, noted − "...there are no conclusive evidence to establish any causal link between the effect of EMF radiation from BTS with biological effects described in cell models, animals or humans, and any possible resulting health effects."

(b) Department of Telecommunications (DoT) has issued advisory guidelines to state governments in 2013 for issue of clearance for installation of mobile towers, a copy of the same is provided at Annexure-I. These guidelines are applicable to all areas, including public places.

With regard to the EMF emission limits for Base Transceiver Stations (BTSs), main conclusion from the WHO reviews is that EMF exposures below the limits recommended in the International Commission on Non Ionizing Radiation Protection (ICNIRP) international guidelines do not appear to have any known consequence on health. In India norms for exposure limit for the Radio Frequency Field (Base Station Emissions) are already 10 times more stringent than the safe limits prescribed by ICNIRP and recommended by WHO. The present EMF emission limits as laid down for BTSs installed at various mobile towers in India are as follows:

Frequency Range E-Field Strength (Volt/Meter) H-Field Strength (Amp/Meter) Power Density (Watt/Sq.Meter)
400 MHz to 2000 MHz 0.434 f Â½ 0.0011 f Â½ f / 2000
2 GHz to 300 GHz 19.29 0.05 1
(f is frequency in MHz)

(c) The Licensed Service Area wise (LSA-wise) details of number of BTSs found exceeding the prescribed EMF radiation limits on actual testing during each of the last three years and the current year is provided at Annexure - II.

(d) In case, any BTS site is found to violate the prescribed EMF norms, actions are taken to put a penalty of Rs. 10 lakh per BTS per

incidence including closing of BTS site as per the prescribed procedure if the violation persists. Licensed Service Area wise (LSA-wise) and Telecom Service Provider(TSP) wise details of penalty imposed on BTSs found exceeding the prescribed EMF radiation limits as on 31.01.2017 is provided at Annexure-III & Annexure-IV respectively.

(e) Department of Telecommunications (DoT) has been carrying out Awareness Programmes on EMF Emissions & Telecom Towers to build a direct bridge of engagement between different stakeholders and to fill the information gap with scientific evidence. The details of places where such programmes have been conducted by DoT and its field units along with its stake holders is attached as Annexure-V.

Annexure-I

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Annexure-II
The Licensed Service Area wise (LSA-wise) details of number of BTSs found exceeding the prescribed EMF radiation limits on actual testing during each of the last three years and the current year

S.No LSA Year 2013-14 Year 2014-15 Year 2015-16 Year 2016-17
Number of BTSs tested Number of BTSs found exceeding EMF radiation limits Number of BTSs tested Number of BTSs found exceeding EMF radiation limits Number of BTSs tested Number of BTSs found exceeding EMF radiation limits Number of BTSs tested Number of BTSs found exceeding EMF radiation limits
1 Andhra Pradesh 6,102 0 6,663 0 7,123 0 8,885 0
2 Assam 1,501 0 1,612 2 1,989 0 2,166 0
3 Bihar 3,384 0 4,596 0 5,583 0 5,369 0
4 Delhi 3,187 0 3,733 0 4,395 0 4,376 0
5 Gujarat 4,724 0 4,819 0 4,843 0 6,267 0
6 Haryana 1,749 0 1,933 0 2,258 0 2,670 0
7 Himanchal Pradesh 763 0 817 0 1,101 0 1,245 0
8 Jammu and Kashmir 642 1 670 0 858 0 984 0
9 Karnataka 5,681 10 6,137 0 7,216 6 7,440 29
10 Kerala 3,329 0 3,494 0 3,996 0 4,565 0
11 Kolkata 1,407 0 1,951 0 2,554 0 3,189 0
12 Maharashtra 6,294 4 5,345 0 7,211 0 9,965 0
13 Madhya Pradesh 5,508 14 4,288 0 5,579 0 6,942 0
14 Mumbai 2,303 36 2,013 0 1,742 0 3,551 0
15 North East 1,263 0 1,049 0 1,338 0 1,185 0
16 Odisha 2,251 0 1,262 0 1,311 0 2,113 0
17 Punjab 2,686 0 2,703 0 3,287 0 4,246 0
18 Rajasthan 3,403 0 3,604 0 3,457 0 5,053 0
19 Tamil Nadu 9,135 0 7,560 0 8,368 0 10,040 0
20 Uttar Pradesh (East) 5,060 10 2,862 0 5,198 0 5,209 0
21 Uttar Pradesh (West) 3,799 0 3,544 0 4,541 0 4,340 0
22 West Bengal 2,144 0 3,030 0 2,720 6 2,934 0
Total 76,315 75 73,685 2 86,668 12 1,02,734 29
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Annexure-III
Licensed Service Area wise (LSA-wise) details of penalty imposed on BTSs found exceeding the prescribed EMF radiation limits on actual testing as on 31.01.2017
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Sl. No. LSA Total number of BTSs tested as on 31.01.2017 No. of BTS found exceeding prescribed Emf radiation limits (as on 31.01.2017) Amount of penalty imposed on account of violation of radiation norms (as on 31.01.2017)
1 Andhra Pradesh 37,155 0 0
2 Assam 8,126 2 20,00,000
3 Bihar 20,814 0 0
4 Delhi 15,869 0 0
5 Gujarat 24,039 0 0
6 Haryana 10,850 1 5,00,000
7 Himachal Pradesh 5,067 6 30,00,000
8 Jammu and Kashmir 2,635 0 0
9 Karnataka 37,270 50 1,15,34,274
10 Kerala 19,146 0 0
11 Kolkata 9,728 0 0
12 Maharashtra 30,763 4 20,00,000
13 Mumbai 10,482 127 6,35,00,000
14 North East 5,394 0 0
15 Odisha 11,712 0 0
16 Punjab 13,721 0 0

17 Rajasthan 17,914 1 5,00,000
18 West Bengal 11,063 6 60,00,000
19 Madhya Pradesh 24,567 14 1,40,00,000
20 Tamilnadu 38,292 0 0
21 Uttar Pradesh (East) 19,902 10 50,00,000
22 Uttar Pradesh (West) 17,856 0 0
Grand Total 3,92,365 221 10,80,34,274
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Annexure-IV
Telecom Service Provider(TSP) wise details of penalty imposed on BTSs found exceeding the prescribed EMF radiation limits on actual testing as on 31.01.2017
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Sl. No. TSP Total number of BTSs tested as on 31.01.2017 No. of BTS found exceeding prescribed Emf radiation limits (as on 31.01.2017) Amount of penalty imposed on account of violation of radiation norms (as on 31.01.2017)
1 Aircel/Dishnet 27,551 15 90,00,000
2 Airtel/BHL 86,982 52 2,15,06,855
3 BSNL 32,130 8 70,00,000
4 Etisalat/Allianz 48 0 0
5 IDEA/ABTL 64,918 17 95,06,855
6 Loop 375 11 55,00,000
7 MTNL 969 3 15,00,000
8 QTL/HFCL 913 0 0
9 Reliance 35,030 30 1,65,00,000
10 Reliance Jio 21,781 2 0
11 SSTL (MTS) 4,971 1 5,00,000
12 STEL 251 0 0
13 Tikona 40 0 0
14 TTSL/TTML/Tata 36,284 30 1,45,13,709
15 Videocon 2,667 2 10,00,000
16 Vodafone 65,481 43 1,80,06,855
17 Telenor/Telewings/Uninor 11,949 7 35,00,000
18 Augere 25 0 0
Grand Total 3,92,365 221 10,80,34,274
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Annexure-V
Details of EMF Awareness Programmes carried out by DoT along with its Stakeholders
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SN Name of TERM Cell Locations at which EMF awareness workshops have been conducted District at which EMF awareness workshops have been conducted State at which EMF awareness workshops have been conducted Date/Month on which these workshops have been conducted
1 Hyderabad ITC Kakatiya, Begumpet, Hyderabad Hyderabad Telangana 13-07-2016
Kukatpally, Hyderabad Rangareddy Telangana 18-02-2017
2 Maharashtra At 18 Grampanchayats in the state of Goa North Goa & South Goa Goa 11-09-2016 & 22-09-2016 to 25-09-2016
3 North East-1 The Shillong Club Ltd., Shillong East Khasi Hills District Meghalaya 23-02-2017
4 Rajasthan Hotel Golden Tulip Udaipur Rajasthan 17-02-2017
5 Assam Guwahati Kamrup (Metro) Assam 24-01-2017
Jorhat Jorhat Assam 20-02-2017
6 Mumbai Nariman Point, Mumbai Mumbai Maharashtra 23-08-2016
1) Chikalim Panchayat 2) Vetim Panchayat 3) Nagova panchayat Goa Goa 11-09-2016
1) Chikalim Panchayat 2) Vetim Panchayat 3)Verkha panchayat Goa Goa 23-09-2016 & 24-09-2016
7 DELHI ASSOCHAM Delhi Delhi 17-11-2014
Dwarka Delhi Delhi 04-09-2015
R K Puram Delhi Delhi 31-10-2015
IMA Delhi Delhi Delhi Nov/Dec-2015
8 Punjab Hotel Lalit, Chandigarh Chandigarh Punjab 21-10-2016
Sector 34, Chandigarh Chandigarh Punjab Nov-16
BSNL office, Patiala Patiala Punjab Dec-16
U.I.E.T., Sector 25, Chandigarh Chandigarh Punjab 30-01-2017
Jandiala Guru, Amritsar Amritsar Punjab 31-01-2017
T.E. Building, Raiya Amritsar Punjab 31-01-2017
Panjab University, Chandigarh Chandigarh Punjab 31-01-2017
Landran, Mohali Mohali Punjab 13-02-2017
Baba Banda Singh Bahadur College, Fatehgarh Sahib, Punjab Fatehgarh Sahib Punjab 23-02-2017
Sector 19, Chandigarh Chandigarh Punjab 24-02-2017
9 Jaipur OTS, JLN Marg, Jaipur Jaipur Rajasthan 26-05-2012
Rambagh, Jaipur Jaipur Rajasthan 30-07-2012
Deptt of Health and Medical Services, Govt of Rajasthan Jaipur Rajasthan 11-09-2015

ITC Rajputana, Railway Station, Jaipur Jaipur Rajasthan 17-12-2016
10 Andhra Pradesh Vijayawada (Locations : Centrel Excise colony, Ranigarithota, Krishnalanka, Governerpet & Bhavanipuram) Krishna Andhra Pradesh 10-11-14 to 12-11-14
Kakinada East Godavari Andhra Pradesh 22-11-2014
Nalgonda Nalgonda Telangana 25-11-2014
Vijayawada Krishna Andhra Pradesh 20-02-2015
11 Kerala Ernakulam District Collectorate Ernakulam District Kerala 28-02-2017
12 Uttaranchal Hotel Madhuban , Rajpur Road, Dehradun Dehradun Uttarakhand 30-06-2016
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